

Animal and Plant Health Inspection Service, USDA

§ 305.10

Treatment schedule	Pressure	Temperature (°F)	Dosage rate	Exposure period (hours)
T311	NAP	50 or above	60 grams/1000 ft ³	168

¹ Normal atmospheric pressure.

§ 305.8 Sulfuryl fluoride treatment schedules.

Treatment schedule	Pressure	Temperature (°F)	Dosage rate (lb/1000 cubic feet)	Exposure period (hours)
T310-d	NAP ¹	70 or above	2	24
		50-69	2.5	24
		40-49	3	24
DT404-b-2	NAP	70 or above	4	16
		60-69	4	24
		50-59	5	24
		40-49	6.5	24
			5	32
T404-c-2	NAP	70 or above	1	16
		60-69	1.5	24
		50-59	2.5	24

¹ Normal atmospheric pressure.

§ 305.9 Aerosol spray for aircraft treatment schedules.

(a) *Military aircraft.* Aerosol disinfection of U.S. military aircraft must conform to requirements in the latest edition of "Quarantine Regulations of the Armed Forces" (Army Reg. 40-12; SECNAVINST 6210.2A; AFR 161-4).

(b) *Aerosol schedules.*

Treatment schedule	Aerosol	Rate
T409-b	d-phenothrin (10%)	8g/1,000 ft ³ .
T409-c-1	Resmethrin (2%) ..	10g/1,000 ft ³ .
T409-c-3	Resmethrin (1.2%) ..	16.66/1,000 ft ³ .

§ 305.10 Treatment schedules for combination treatments.

(a) *Fumigation followed by cold treatment.* (1) Treatment requirements for chemical treatments in §305.5 and for cold treatment in §305.15 must be followed.

(2) Normal atmospheric pressure must be used for the methyl bromide portion of the treatment.

(3) In the following table, CT represents cold treatment, and MB represents methyl bromide fumigation:

Treatment schedule	Type of treatment	Temperature (°F)	Dosage rate (lb/1000 ft ³)	Exposure period
T108-a-1 ¹	MB	70 or above	2	2 hours.
	CT	33-37 .....	.....	4 days.
		38-47 .....	.....	11 days.
T108-a-2 ²	MB	70 or above	2	2.5 hours.
	CT	34-40 .....	.....	4 days.
		41-47 .....	.....	6 days.
		48-56 .....	.....	10 days.
T108-a-3 ³	MB	70 or above	2	3 hours.
	CT	43-47 .....	.....	3 days.
		48-56 .....	.....	6 days.
T108-b	MB	50 or above	1.5	2 hours.
		40-49	2	2 hours.
	CT	33 or below .....	.....	21 days.
		48-56 .....	.....	6 days.
MB&CTMedfly	MB	70 or above	2	2 hours.
	CT	33-37 .....	.....	4 days.
		38-47 .....	.....	11 days.
	MB	70 or above	2	2.5 hours.

Treatment schedule	Type of treatment	Temperature (°F)	Dosage rate (lb/1000 ft ³)	Exposure period
MB&CTOFF ⁴	CT	34–40		4 days.
		41–47		6 days.
		48–56		10 days.
	MB	70 or above	2	3 hours.
	CT	43–47		3 days.
		48–56		6 days.
	MB	70 or above	2	2 hours.
	CT	33–37		4 days.
		38–47		11 days.
	MB	70 or above	2	2.5 hours.
	CT	34–40		4 days.
		41–47		6 days.
		48–56		10 days.
	MB	70 or above	2	3 hours.
	CT	43–47		3 days.
		48–56		6 days.

¹For Hawaiian-grown avocados only, a single transient heat spike of no greater than 39.6 °F (4.2 °C) and no longer than 2 hours, during or after 6 days of cold treatment, does not affect the efficacy of the treatment.

²See footnote 1.

³See footnote 1.

⁴Following fumigation, the fruit must be aerated 2 hours before refrigeration (but refrigeration must begin no more than 24 hours after fumigation is completed).

(b) *Cold treatment followed by fumigation.* (1) Treatment requirements for chemical treatments in §305.5 and for cold treatment in §305.15 must be followed.

(2) Use normal atmospheric pressure for the methyl bromide portion of the treatment.

(3) In the following table, CT represents cold treatment, and MB represents methyl bromide fumigation:

Treatment schedule	Type of treatment	Temperature (°F)	Dosage rate (lb/1000 ft ³)	Exposure period
T109–a–1	CT	34 or below		40 days.
	MB	50 or above	3	2 hours.
T109–a–2	CT	34 or below		40 days.
	MB	59 or above	2 pounds 6 ounces	2 hours.
T109–d–1	CT	33 or below		21 days.
	MB	70 or above	2	2 hours.
		60–69	2.5.	
		40–59	3.	
CT&MBOFF	CT	33		21 days.
	MB	40–59	3	2 hours.
		60–69	2.5	2 hours.
		70–79	2	2 hours.

(c) *T203–p and T511–1, hot water and chemical dip for citrus (Rutaceae) seeds for citrus canker.* (1) If any mucilaginous material, such as pulp, is adhering to the seed, the seed must be washed to remove it.

(2) The seed must be immersed in water heated to 125 °F or above for 10 minutes.

(3) Then the seed must be immersed for at least 2 minutes in a solution containing 200 parts per million sodium hypochlorite at a pH of 6.0 to 7.5.

(4) Seed from regions where citrus canker occurs must be drained, dried,

and repacked near original moisture content.

(d) *T201–g–2 and T201–p–2, hand removal plus malathion-carbaryl chemical dip.* (1) Pests must be removed by hand from infested parts.

(2) The solutions must be prepared by adding 3 level tablespoons of 25 percent malathion wettable powder and 3 level tablespoons of 50 percent carbaryl wettable powder to each gallon of water. The addition of a sticker-spreader formulation may be required for hard to wet plants. Fresh chemicals must be used and the dip must be prepared for

same day use. (For T201-p-2, when the actionable pests are scale insects or their immature crawlers and the label permits, the solution is prepared as indicated, except the 25 percent malathion wettable powder is increased to 4 level tablespoons.)

(3) The entire plant, including the roots, must be submerged in the chemical dip for 30 seconds.

§ 305.11 Miscellaneous chemical treatments.

(a) *CC1 for citrus canker.* The fruit must be thoroughly wetted for at least 2 minutes with a solution containing 200 parts per million sodium hypochlorite.

(b) *CC2 for citrus canker.* The fruit must be thoroughly wetted with a solution containing sodium o-phenyl phenate (SOPP) at a concentration of 1.86 to 2.0 percent of the total solution, for 45 seconds if the solution has sufficient soap or detergent to cause a visible foaming action or for 1 minute if the solution does not contain sufficient soap to cause a visible foaming action.

§§ 305.12–305.14 [Reserved]

Subpart—Cold Treatments

§ 305.15 Treatment requirements.

(a) *Approved facilities and carriers.* Cold treatment facilities or carriers must be approved by APHIS. Re-approval is required annually, or as often as APHIS directs, depending on treatments performed, commodities handled, and operations conducted at the facility. In order to be approved, facilities and carriers must:

(1) Be capable of keeping treated and untreated fruits, vegetables, or other articles separate so as to prevent reinfestation of articles and spread of pests;

(2) Have equipment that is adequate to effectively perform cold treatment.

(b) *Cold treatment enclosures.* All enclosures in which cold treatment is performed, including refrigerated containers, must:

(1) Be capable of precooling, cooling, and holding fruit at temperatures less than or equal to 2.2 °C (36 °F).

(2) Maintain pulp temperatures according to treatment schedules with no

more than a 0.3 °C (0.54 °F) variation in temperature.

(3) Be structurally sound and adequate to maintain required temperatures.

(c) *Monitoring.* Treatment must be monitored by an official authorized by APHIS to ensure proper administration of the treatment. An official authorized by APHIS must approve the recording devices and sensors used to monitor temperatures and conduct an operational check of the equipment before each use and ensure sensors are calibrated. An official authorized by APHIS approves, adjusts, or rejects the treatment.

(d) *Compliance agreements.* Facilities located in the United States must operate under a compliance agreement with APHIS. The compliance agreement must be signed by a representative of the cold treatment facility and APHIS. The compliance agreement must contain requirements for equipment, temperature, circulation, and other operational requirements for performing cold treatment to ensure that treatments are administered properly. Compliance agreements must allow officials of APHIS to inspect the facility to monitor compliance with the regulations.

(e) *Work plans.* Facilities located outside the United States must operate in accordance with a work plan. The work plan must be signed by a representative of the cold treatment facility, the national plant protection organization of the country of origin (NPPO), and APHIS. The work plan must contain requirements for equipment, temperature, circulation, and other operational requirements for performing cold treatment to ensure that cold treatments are administered properly. Work plans for facilities outside the United States may include trust fund agreement information regarding payment of the salaries and expenses of APHIS employees on site. Work plans must allow officials of the NPPO and APHIS to inspect the facility to monitor compliance with APHIS regulations.

(f) *Treatment procedures.* (1) All material, labor, and equipment for cold treatment performed on vessels must be provided by the vessel or vessel agent. An official authorized by APHIS